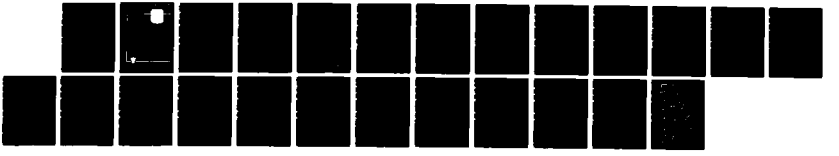
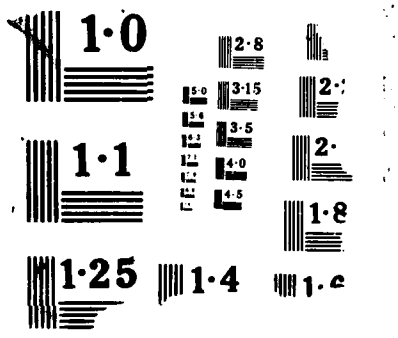
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THE SIXTH PARAGRAPH--SAFETY

BY

LIEUTENANT COLONEL CHARLES M. BECHTEL

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The Army has made a definite investment of time, effort and funds to enhance its safety program over the last ten years. Unfortunately, the program's effects were slow to reach the soldier level. The Army's effort, in large part, was driven by statutory requirements of the Occupational Safety and Health Act. Therefore, the Army's approach was similar to private industry. It hired civilain safety experts at major Army commands to interpret the complicated maze of written laws, regulations and industry standards. These safety experts were staff personnel with direct access to the commander. All was well at the top, but the average troop commander and his soldiers did not benefit significantly from this effort. Major commanders soon recognized that the importance of the program was not getting to unit commanders and their troops when they reviewed accident reports showing an unacceptable level of serious and avoidable accidents. Army leadership in the last several years has made considerable progress in getting the safety message to the soldier, but senior leaders have said we have further to go. A good method to improve safety awareness at the unit level would be to adopt a six paragraph operations order with safety as the sixth paragraph. All good troop leaders refer to their handy pocket size troop leading procedures card regularly during field operations. If they see "Safety" as the sixth paragraph, it will remind company level officers and NCOs that safety is a subject they must discuss as an integral part of operations and training.

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THE SIXTH PARAGRAPH--SAFETY

An Individual Study Project
Intended for Publication

by

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The Army has made a definite investment of time, effort and funds to enhance its safety program over the last ten years. Unfortunately, the program's effects were slow to reach the soldier level. The Army's effort, in large part, was driven by statutory requirements of the Occupational Safety and Health Act. Therefore, the Army's approach was similar to private industry. It hired civilain safety experts at major Army commands to interpret the complicated maze of written laws, regulations and industry standards. These safety experts were staff personnel with direct access to the commander. All was well at the top, but the average troop commander and his soldiers did not benefit significantly from this effort. Major commanders soon recognized that the importance of the program was not getting to unit commanders and their troops when they reviewed accident reports showing an unacceptable level of serious and avoidable accidents. Army leadership in the last several years has made considerable progress in getting the safety message to the soldier, but senior leaders have said we have further to go. A good method to improve safety awareness at the unit level would be to adopt a six paragraph operations order with safety as the sixth paragraph. All good troop leaders refer to their handy pocket size troop leading procedures card regularly during field operations. If they see "Safety" as the sixth paragraph, it will remind company level officers and NCOs that safety is a subject they must discuss as an integral part of operations and training.

INTRODUCTION

If the Army's primary safety concern is the safety of the soldier, its safety program should be simple, straightforward, and manageable at lower levels of command. Junior officers and NCOs must understand it so they can train and indoctrinate their soldiers in its principles. Adopting a "standard six paragraph operations order," with SAFETY as the sixth paragraph, would be an excellent way to get the message to the soldiers and convince company grade leadership that the Army is dead serious about safety in every aspect of its training and operations.

If we are to fight the next war outnumbered and outgunned and still win, every soldier will be absolutely essential on the battlefield. Just as important as the austere number of soldiers with which we will start the next war is the fact that each one carries a variety of sophisticated skills. The U.S. Army has dealt with the manpower shortfall by procuring complex weapon systems that will act as force multipliers on the modern battlefield. These systems require highly trained personnel to operate and maintain; therefore a commander can no longer simply bring in a group of replacements and expect them to operate with the same efficiency as his original troops. The conclusion is obvious--he must do everything possible to retain as many of our soldiers as possible. We simply cannot afford the high number of noncombat losses suffered in previous wars, or for that matter lost in routine training operations.

HISTORY OF THE PROBLEM

The United States Army has invested a great amount of money and manpower in its efforts to improve safety, and we have seen considerable progress in this area. Unfortunately, a large part of the effort, and certainly the initial thrust, was in the form of a corporate approach complete with technical terms, voluminous statistics, and charts that had to be briefed by safety experts.

The Army's primary safety regulation is AR 385-10, The Army Safety Program, dated 1 February 1979. Although the regulation is considerably out of date and mentions commands that have been nonexistent for several years, it does establish the initial direction of the Army's safety program. The words "officer," " noncommissioned officer" and "soldier" do not appear in the regulation. Instead, words such as "officials," "managers" and "supervisors" are used to discuss personnel in the chain of command. The term "commander" is used throughout only to define and fix the responsibilities of major commanders. In turn, major commanders have hired civilian safety experts to administer their programs and protect them from claims of noncompliance with regulatory and statutory requirements.

Apparently, the main thrust of AR 385-10 is to cover the Department of the Army as far as its requirement to comply with Public Law 91-576, the Occupational Safety and Health Act of 1970. This Act created the Occupational Safety and Health Administration (OSHA) within the Department of Labor.

The mission of OSHA is "to assure so far as possible every working man and woman in the Nation safe and healthful working

conditions and to preserve our human resources...".[1] Specifically, OSHA is charged with reducing workplace hazards, providing for research in occupational safety and health, establishing separate but dependent responsibilities and rights for employees, maintaining a reporting and recordkeeping system that monitors job-related injuries and illnesses, establishing training programs, and developing mandatory job-safety and health standards.[2] It's easy to see how a major commander would be concerned with this impressive list of responsibilities; a civilian expert placed high on the staff provides an obvious answer.

Overall, OSHA has been very successful. Organized labor has recognized the need for strong regulations to deal with such realities as high on-the-job accident rates and carcinogen hazards. After receiving citations and fines, employers realized they had to comply and took appropriate corrective action. For example, about 200,000 fewer job-related injuries occurred in 1981 than in 1980. Fewer than 100,000 injuries serious enough to warrant time away from work were reported, and illness dropped markedly during the same period.[3]

The Department of Defense, more than any other government agency, is affected by OSHA regulations. This impact occurs either directly in DOD-operated facilities, such as naval shipyards, or in facilities of private corporations. By Executive direction, Government agencies are required to comply with OSHA regulations.[4]

AR 385-10 opens with the statement, "this revision integrates the Occupational Safety and Health (OSH) Act ... and implements DODI 6055.1; CFR 29, Part 1960; and DODI 1000.18..."

It's easy to understand why a military officer might feel as though he is reading a document written by safety experts and lawyers for other safety experts and lawyers. In fact, the regulation for the most part addresses various regulatory and statutory requirements placed on the the Department of the Army as a large employer of personnel covered by numerous federal and DOD health and safety requirements.

AR 385-10 adequately transmits the Army's responsibilities and concerns about externally driven health and safety requirements to major field commanders. But it is a weak document for informing unit commanders how they ought to run a good safety program that will prevent soldiers from being injured or killed while performing the extremely hazardous tasks inherent in military operations and training.

Given the legalistic tone of AR 385-10, most installation and MACOM commanders started the search for well trained safety experts to deal with the numerous responsibilities spelled out in the regulation. These experts were in the form of well trained civilians, often backed by a civilian staff complete with numerous and various sophisticated measuring devices that could detect and quantify anything from the gamma radiation emitted by a lensatic compass to the decibels put off by an internal combustion engine.

Many Army employees did benefit from the OSHA impetus. Unfortunately, front line soldiers were not usually among the primary recipients. This is understandable, since uniquely military operations such as firing tank tables and field training were excluded from the provisions of OSHA. AR 385-10 made this point clear!

Some soldiers, particularly combat service support personnel, did benefit directly from OSHA and the OSHA driven Army program. Senior soldiers who had never worn hearing protection in or around the maintenance shop were told that they had to comply or suffer disciplinary action. It was refreshing to visit nonmilitary unique workplaces, such as TDA maintenance shops during the early 1980s and see workers, including soldiers, wearing eye and hearing protection, driving heavy equipment with rollover protection systems and using various other safety devices and equipment that heretofore had not been part of the workplace, or worse--were there but not used.

While many managers and supervisors of personnel covered by OSHA scurried to comply with the regulations, including military managers and supervisors, field commanders responsible for only military unique operations remained virtually unaffected. Usually, the company level mandatory safety briefings were given by lieutenants who had little or no formal safety training.

In addition, some field commanders thought safety was a peace time concern and actually interfered with "realistic training". Some even implied that a few injuries were to be expected during a good, hard training exercise. Such a cavalier attitude reveals a commander who does not realize that trained troops are his most important asset and the most difficult to replace. Furthermore, most troops are far from impressed with a commander who injures, maims, or kills his contemporaries in the name of realistic training. This fact was recognized long ago and addressed in detail by "Dixhuit", when he pseudonymously wrote a book in 1918 entitled Safety in Trench

Warfare. A seasoned combat veteran, "Dixhuit" served three years on the Western Front of the First World War with the Royal Field Artillery and the infantry. He wrote that:

> Over 20 [per cent.] of our casualties are just gifts to the enemy --that is to say, the direct result of inexperience and lack of knowledge, of carelessness, or useless rashness and want of common sense, or of timidity and indecision, and the avoidance of these casualties rests only with the troops themselves.[5]

However, most good commanders would no doubt disagree with "Dixhuit" in one respect: commanders and troop leaders, as well as "the troops themselves," are responsible for the losses he describes.

Safety was not a subject most World War I officers wrote about. Dixhuit's contemporaries probably thought his fixation with safety on the battlefield displayed a real lack of raw bravery. In fact, in 1953 Lieutenant Colonel W. F. Stirling, a retired officer of the British Army and holder of the Distinguished Service Order and the Military Cross, wrote a book of his military adventures and experiences in several wars. The name of the book was Safety Last. The book started with a letter from the well known poet and writer Siegfried Sassoon, a highly decorated veteran of World War I. Sassoon made particular reference to the title when he stated:

> At the conclusion of your narrative you rightly deplore the slogan, "Safety First," coined in the 1930s and--as you indicate--"inscribed on the very hearts of the country's rulers thus denying us our Elizabethan birthright; the right to adventure in every quarter of the globe."[6]

Stirling's book clearly indicates that some senior officers felt the cautious and safe way equated, as far as they were

concerned, with a lack of bravery and zeal for adventure. They evidently thought an advocate of the "safe way" was what is now referred to as a "wimp". Most modern commanders are smart enough not to affix their signature to any such official documents. But just listening to some in casual conversation will ensure us that the "Elizabethan birthright" syndrome has not completely left us.

The phenomenon of high personnel losses in combat situations due to nonbattle causes was not unique to World War I. The US Army has experienced the same results in every war in which it has been involved. Colonel Harry Summers writes in his Vietnam War Almanac:

> "In World War I significantly more servicemen died of disease than died on the battlefield. These figures reversed in World War II, and in the Korean war there were approximately three Americans killed in action for every two who died from other causes. In Vietnam, because of improved combat medical care, the ratio of battle to nonbattle deaths increased to almost five to one".[7]

The good news is that the US Army made significant gains in the ratio of battle to nonbattle losses in Vietnam, compared to previous wars. But the credit does not go to improved safety measures on and around the battlefield. Vastly improved evacuation time by the helicopter and superb medical care were the two primary reasons. In fact, the number of casualties "not the result of actions by hostile forces" were depressing. There were approximately 47,244 deaths from actions by hostile forces and 10,446 not from actions of hostile forces. So over 22% of the deaths were not the result of actions by hostile forces. (Table 1)

The 22% figure for the Vietnam War is disturbing. But anyone who served there can probably think of at least one foolish accident that resulted in serious injury or death. Numerous vehicle accidents were often written off as "combat losses." The case of the majority of a squad becoming casualties with two instant deaths because someone in the squad was "playing with a grenade" while the squad was in a bunker is especially disheartening. The grenade explosion set off a claymore mine that one soldier was practically sitting on, thereby removing the best part of both his legs.[9]

Likewise, many Vietnam veterans recall the bunkers and "hooches" filled with various types of weapons and ordnance. Of course weapons and grenades had to be reasonably handy to fend off a short notice attack by the enemy, but how many times were sloppy and even unsafe conditions allowed to prevail. Sadly enough, many young soldiers thought the haphazard layout of weapons and ordnance was a sign of the team or squad's bravado. How many accidents could have been prevented by officers and NCOs who were willing to talk about the safe way, the sensible way of doing the job?

Research on leadership in combat indicates that a soldier is most influenced by his first line leader and his second line leader, if he has personal contact with this person. In other words, individuals above the platoon leader mean little to the soldier who is a member of a squad during combat. The same would no doubt hold true for intensive, high stress training situations such as those found at the Army's National Training Center. Of course, veteran company level officers and NCOs didn't need extensive research to disclose this fact; it seems

rather obvious.

If the Army is serious about safety, it must reach the soldier through his immediate leader. The trickle down effect from civilian GM-14 safety managers through generals and colonels may not be good enough. If we are to save soldiers from themselves, we must reach their first line supervisors--quickly and directly!

Fortunately for our soldiers, the Army's highest levels of leadership have recognized the importance of reaching down to the unit level with a safety program. Safety does not conflict with good training, but rather it is part of good training. A message from Department of the Army training staff in June of 1983 made this clear. Safety is Training, went to all major commands. It states flatly:

> 1. Greatly concerned about number of training accidents/deaths since Jan 83. Most, if not all, seem to be lapses in training or lack of understanding that safety is component part of all training.
> 2. Need your help to overcome problem. While G1 is manager, safety is very much G3 business. Prompt attack now better than perfect one later.[9]

The tone of the above message is vastly different than that of AR 385-10. The message is written in simple, straightforward terms that unit commanders can understand and act upon. The message also pointed out that the field was expected to integrate safety into daily training. It further stated, "Safe training doesn't mean reducing training realism-- most often just common sense." This message also assigned proponency for safety training to the Army's Training and Doctrine Command (TRADOC).

TRADOC followed in July 83 with a message entitled Safety Training. According to TRADOC, safety training fell into two broad categories, leadership/command and branch specific. On the subject of command/leadership training the message stated that:

> Leadership/command safety training requires incorporation of appropriate level safety instruction and instilling in the following leader courses awareness of the need for safety in the planning for and conduct of training and operations when they train units:
>
> a. Noncommissioned officer and drill sergeant courses.
>
> b. Warrant Officer Orientation courses.
>
> c. Officer Basic Course (common core).
>
> d. Officer Advanced Course (Precommand course module).
>
> e. Command and General Staff College (all forms).
>
> f. Precommand Course.'[10]

The TRADOC Commander also informed school commandants that they were responsible for "incorporating requirements inherent in safety proponency into doctrine development."'[11]

The Commander in Chief, United States Army Europe, followed the Department of the Army message with his own in November of 1983, in which he solicited his subordinate commands for suggestions and recommendations on how best to meet the Army guidance.'[12] It appeared the Army had really turned the corner on safety since the highest levels of leadership were very involved and it was clear that they expected safety training and awareness to be part of routine procedures.

The Army has certainly adopted a more aggressive approach in dealing with the welfare and safety of its soldiers. A fact sheet written in September 1986 by Mr. George Morgan, director of TRADOC's Command Safety Office, outlines the importance of a

proactive safety program versus the method of reacting to an accident after the fact. The document points out that many situations can be analyzed ahead of time. For example, with the warm summer months comes the unfortunate swimmming and boating accidents. Army personnel and their families should be fully informed of the magnitude of the hazards and the ways of preventing accidents.'[3] Of course this same line of reasoning can be applied to military operations. Every operation carries its own unique dangers. The military leader should analyze the operation and then ensure that his personnel are aware of the hazards and the ways to avoid them. After repetition of this process, this should become standard operating procedure and provide the additional benefit of automatically having our soldiers "think safety".

When General Carl E. Vuono was commanding TRADOC, he spoke of the great progress made in reducing accidents in fiscal years 1985, 1986 and 1987. But he wanted further progress. He also emphasized the need to continue integrating safety into other forms of training. In a letter dated 28 May 1987 he said:

> This positive indicator of TRADOC's safety training programs offers promise of obtaining even greater success Armywide as more TRADOC students assume their duties as officers, NCOs, and soldiers in units.
>
> Safety instruction has been incorporated into all appropriate TRADOC courses as a part of either Leader Safety Awareness Training or Safety Awareness Training programs.
>
> a. Leader Safety Awareness Training incorporates safety management blocks into the Programs of Instruction of the Advanced NCO courses, Warrant Officer entry courses, and Officer Basic courses.
>
> b. Safety Awareness Training integrates safety instruction into all TRADOC leadership, functional and professional development courses ranging from Initial Entry Training to Command and General Staff College.

> The TRADOC standard of "train as we intend to fight" assumes even greater significance when our soldiers meet the ultimate test of combat.'[4]

Although much progress had been made in safety managememt and accident reduction, United States Army, Forces Command (FORSCOM) still felt more had to be done in the area of training officers and NCOs. Major General Wiegand, FORSCOM Chief of Staff in September 1987 wrote, "although we integrate safety awareness training throughout the Army school system, our NCOs and officers lack accident prevention skills."'[5] The General went on to suggest formal blocks of instruction that would develop in officers and NCOs the ability to make risk management decisions, properly counsel individuals and develop simple, operational countermeasures in the field environment to control or eliminate hazards.

Lieutenant Colonel James K. Skiles,the Chief of Leader Training, Development and Ethics at the Center for Army Leadership in Fort Leavenworth, Kansas is the military supervisor of the center's safety manager. He believes the Army loses the equivalent of a battalion of troops each year, many in vehicle accidents, both military and civilian. Colonel Skiles agrees with the FORSCOM approach , so he advocates a formal procedure that would allow analysis of each accident. Then, the cause along with the preventative measures should be taught right in the school responsible for the specific branch training. Therefore, we would optimize our learning of safe procedures and accident prevention from past mistakes.

AR 385-10 has finally been updated, albeit in draft form. It does give the organizational commander more specific guidance

on the Army Safety Program. It addresses the importance of safety in field operations. It emphasizes chain of command involvement. The regulation even directs that the subject will be a part of officer efficiency reports. Various tools have been included to help the commander make a risk assessment, with the assumption that this will be part of regular decision making process when it comes to planning training and operations."

CONCLUSIONS/RECOMMENDATIONS

Safety awareness has increased significantly throughout the Army in the last five years and the statistics reveal a positive trend (Table 2). However, it is clear that many senior commanders are still concerned about getting the message to our company level leaders and ensuring that these leaders fulfill their responsibilities as the Army's primary safety managers.

One good method of reinforcing the importance of safety in the minds of small unit leaders is to add a sixth paragraph to the standard operations order. Many have argued that safety does not require a separate paragraph, asserting it can be added in an annex like so many other concerns of the commander that are not addressed in the five paragraphs. The shortcoming of this argument is based on the fact that at the small unit level there are usually no annexes. In fact, when the platoon leader or squad leader pulls out his old reliable pocket version of the troop leading procedures, the first thing he sees is the standard five paragraph order. If he saw the standard six paragraph order, with safety as the sixth paragraph, the need to

think about and plan for safety would be immediately reinforced.

For example, a combat engineer platoon leader who was giving a squad a mission of destroying a bridge with demolitions would certainly caution them on the more obvious hazards associated with the explosives. If he remembers an accident situation either from his own experiences or from information he has obtained from such sources as Countermeasure, the widely distributed safety publication from the Army Safety Center, he will remember to brief his team on it. On the other hand, the lenghty and impressive division safety annex won't do him much good--he'll never see it at his level. Most soldiers did not receive such briefings during our past wars. Of course, the appalling number of casualties "not as a result of hostile action" indicates the price we've paid for this inattention.

Another argument against the safety paragraph is based on the Standard Agreement (STANAG) that is in effect concerning the Standard Operations Order. This seems to be an easy way out for the critics. Have we even asked our allies what they think of a sixth paragraph? They are probably as concerned about safety as we are. If they do not want to adopt a sixth paragraph, would they really object if we did? The sixth paragraph would not upset the format of the order, the remainder of the order would be unchanged. Furthermore, operation orders at the joint and combined level could still use a five paragraph format with the numerous annexes associated with such high level orders. The individual soldier is not concerned with much of the detail in these annexes, but he is very concerned about the things that affect his personal health and safety.

If the Army really plans on training as it intends to fight,

it can start proving it to its soldiers by having troop leaders talk about safety as they do any other aspect of the operation. The best way to accomplish this is with an operations order that directly addresses safety.

The basic and traditional means of transmitting information to the soldier in the field, or in combat, is the standard five paragraph operations order. If all levels of Army leadership are truly committed to the proposition that safety should receive as high a priority as training, or any other subject, directing the use of a six paragraph order should be very effective. Then, the Army's concern for safety would have immediate and significant impact on soldiers through their first line leaders.

TABLE 1

Number of US Casualties during the Vietnam War
(Cumulative from Jan. 1, 1961 through Sept. 30, 1980)

A. CASUALTIES FROM ACTIONS BY HOSTILE FORCES

	Army	Navy	Marine Corps	Air Force	Total
1. Killed	25,341	1,097	11,494	504	38,436
2. Died of wounds	3,521	146	1,454	48	5,169
3. Died while missing	1,961	295	107	1,161	3,524
4. Died while captive	45	36	10	24	115
5. Deaths					
a.aircraft					
Fixed wing	98	278	179	1,099	1,654
Helicopter	2,404	75	449	88	3,016
b.ground	28,366	1,221	12,437	550	42,574
TOTAL DEATHS	30,868	1,574	13,065	1,737	47,244

B.CASUALTIES NOT THE RESULT OF HOSTILE FORCES

6. Deaths					
a.aircraft					
Fixed wing	286	221	51	295	853
Helicopter	1,946	62	245	19	2,272
b.ground	5.017	626	1,389	289	7,321
TOTAL DEATHS	7,249	909	1,685	603	10,446

SOURCE: Department of Defense, OASD (Comptroller), Directorate for Information Operations and Control.

SOURCE: Data on Vietnam Era Veterans, Office of Information Management and Statistics, Veterans Administration, Washington, D.C., September 1983.

TABLE 2

FY 86 STATISTICAL HIGHLIGHTS

Worldwide	FY 86	FY85	Percent Change
Number of Accidents	23,758	26,166	-9%
Fatalities	428	448	-4%
Nonfatal Injuries	20,551	22,179	-7%
Lost Workdays	226,002	254,249	-11%
Property Damage Cost	$112.5m	$126.1m	-11%
Injury Cost	$159.8m	$159.4m	+0.2%
Total Cost	$272.3m	$285.5m	-8%

1. Reductions in Army motor vehicle accidents produced the lowest accident rate in 12 years. The Army motor vehicle accident rate of 2.32 per million of miles driven was better than the average of 2.93 for commercial carriers.

2. Fiscal year 86 produced the lowest number of private motor vehicle accidents since FY 80.

3. Personnel injury accidents were reduced by 2,000.

SOURCE: Information obtained from U.S. ARMY SAFETY,FY 86 Progress Report, dated June 87 (with cover letter from Colonel A.E. Hervey, Deputy Director of Army Safety, 15 June 1987).

ENDNOTES

[1] William E. Durrwachter, Donald A. Kane and James E. Thompson, Jr., Safety and Environmental Regulation in Industrial Mobilization, (Washington D.C.: National Defense University Press, 1985), p. 9.

[2] Ibid.

[3] Ibid., p. 10.

[4] Ibid., p. 37.

[5] "Dixhuit", Safety in Trench Warfare For Yourself and Your Men (London: Aldershot, 1918) p. 1.

[6] W. F. Stirling, Safety Last (London: Hollis and Carter, 1953) p. v.

[7] Harry G. Summers Jr., Vietnam War Almanac (New York: Facts on File Publications, 1985) p. 111.

[8] Personal experience of the author while serving as the Platoon Leader of 3rd Platoon, B Company, 1st Battalion, 8th Cavalry of the 1st Cavalry Division in August 1968.

[9] Department of the Army Letter (DAMO-TR), SUBJECT: Safety is Training, 27 June 1983.

[10] U.S. Army Training and Doctrine Command Letter (ATTG), SUBJECT: Safety Training, 29 July 1983.

[11] Ibid.

[12] Commander in Chief, U.S. Army, Europe Letter (AEAGC-ATC), SUBJECT: Unit Safety Training, 15 November 1983.

[13] Mr. George Morgan, U.S. Army Training and Doctrine Command Fact Sheet (DCSENGR, SAF), SUBJECT: Proactive Safety Program, 8 September 1986.

[14] General Carl E. Vuono, U.S. Army Training and Doctrine Command Letter (ATTG-UC), SUBJECT: Safety Integration in Training , 28 May 87.

[15] Army Regulation 385-10 (Draft), The Army Safety Program, undated. pp. 19-27.

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